

**REMARKS**

Claims 2 to 10, 55 to 63, and 114 to 117 are pending in the present application. Claims 11 to 53 and 64 to 112 have been withdrawn from consideration and canceled without prejudice. Claims 1, 54 and 113 have been canceled without prejudice. Claim 4 has been amended. No new matter has been entered.

Claim 4 stands rejected under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 to 10, 55 to 63, and 114 to 117 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Matlab Primer. These rejections are respectfully traversed by the following remarks.

As to the rejection of claim 4 under 35 U.S.C. § 112 as being indefinite, Applicants have removed the “reconstructing” language that was the basis for the rejection and proper antecedent basis has been provided. No narrowing of claim scope is intended. Applicants respectfully submit that the rejection of claim 4 under 35 U.S.C. § 112 should be withdrawn.

As to the rejections of claims 2 to 10, 55 to 63, and 114 to 117 as anticipated by the Matlab reference, in order for a claim to be anticipated under 35 U.S.C. § 102, a single prior art reference must disclose each and every element of the claim in exactly the same way. *See, e.g., Lindeman Maschinenfabrik v. Am. Hoist and Derrick*, 730 F.2d 1452, 1458 (Fed. Cir. 1984); MPEP § 2131. Applicants respectfully submit that this criteria for establishing anticipation is not met here.

Claim 5 of the present application recites:

5. A method for restoring a previous version of a three dimensional mesh model on a computer system comprising:  
retrieving a stored copy of an earlier state of the three dimensional mesh model on the computer system;  
retrieving an ordered list of operations on the computer system;  
and  
performing at least some of the operations in the ordered list of operations on the retrieved copy of the three dimensional mesh model;  
wherein the ordered list of operations contains the operations which if performed in order on the earlier state of the three

dimensional mesh model would result in a current state of the three dimensional mesh model.

Claim 58 of the present application recites:

58. An article of manufacture comprising a computer-readable medium having stored thereon instructions adapted to be executed by a processor, the instructions which, when executed, define a series of steps to be used for restoring a previous version of a three dimensional mesh model, said steps comprising:

retrieving a stored copy of an earlier state of the three dimensional mesh model;

retrieving an ordered list of operations; and

performing at least some of the operations in the ordered list of operations on the retrieved copy of the three dimensional mesh model;

wherein the ordered list of operations contains the operations which if performed in order on the earlier state of the three dimensional mesh model would result in a current state of the three dimensional mesh model.

Claims 5 and 58 recite retrieving a stored copy of an earlier state of a mesh model and an ordered list of operations and performing at least some of those operations on the retrieved mesh model. The ordered list of operations contains the operations necessary to transform the earlier state of the mesh model into the current state. Thus, one possible application of example embodiments of the present invention is an undo function where each retrieved operation may be applied to the retrieved copy of the mesh model until the desired “level” of undo is reached. *See also* page 8 of the specification.

The Matlab reference cited by the Examiner describes a system that allows a user to save the state of the variables in a Matlab session before exiting, to restore the state of these variables later, to create “M-files” that contain sequences of Matlab commands that are performed when the M-file is called, and to produce mesh surface plots and other graphical representations. However, the Matlab reference does not describe the invention of claims 5 and 58 because it does not describe using the capabilities of Matlab to perform the steps recited in those claims. Among other things, the Matlab reference does not describe an “ordered list of operations [that] contains the operations which if performed in order on the earlier state of the three dimensional mesh model would result in a current state of the three dimensional mesh model.” While it may

be possible for a user to create an M-file in Matlab that contained operations which if performed in order on a earlier state of a three dimensional mesh model would result in a current state of the three dimensional mesh model, Applicants respectfully state that there is no description in the Matlab reference of any user having done so. Applicants respectfully assert that the Examiner has used Applicant's claims as a guide to picking and choosing the functionality of Matlab that might be used to carry out the steps in the claims. But the existence of such functionality is not sufficient to render the claim as anticipated, the steps must have actually been carried out as recited (i.e., as in claim 5) or instructions which define the steps to be carried out must have been stored on a computer readable medium (i.e., as in claim 58). Neither of those conditions have been met by the Matlab reference. The mere fact that a user could hypothetically have carried out the steps of the invention using the programming functionality of the Matlab system does not anticipate the claims.

Claims 6, 7, 59 and 60 depend from claims 5 and 58. Accordingly, the arguments presented above in connection with claims 5 and 58 apply equally to claims 6, 7, 59 and 60.

Applicants respectfully submit that the criteria for establishing anticipation is also not met in regard to claims 115, 116 and 117.

Claim 115 of the present application recites:

115. A method for managing a three dimensional mesh model on a computer system, comprising:

- storing a copy of a first state of the three dimensional mesh model on the computer system;
- performing operations on the three dimensional mesh model, wherein the three dimensional mesh model is in a second state after performing the operations;
- storing a record of each of the operations in an ordered list on the computer system; and
- reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model, wherein the three dimensional mesh model is in a third state after reapplying the at least some of the operations.

Claim 116 of the present application recites:

116. An article of manufacture comprising a computer-readable medium having stored thereon instructions adapted to be executed

by a processor, the instructions which, when executed, define a series of steps to be used for managing a three dimensional mesh model, said steps comprising:

storing a copy of a first state of the three dimensional mesh model;

performing operations on the three dimensional mesh model, wherein the three dimensional mesh model is in a second state after performing the operations;

storing a record of each of the operations in an ordered list; and

reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model, wherein the three dimensional mesh model is in a third state after reapplying the at least some of the operations.

Claim 117 of the present application recites:

117. A system for managing a three dimensional mesh model, the system comprising:

a computer module for storing a copy of a first state of the three dimensional mesh model;

a computer module for performing operations on the three dimensional mesh model, wherein the three dimensional mesh model is in a second state after performing the operations;

a computer module for storing a record of each of the operations in an ordered list; and

a computer module for reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model, wherein the three dimensional mesh model is in a third state after reapplying the at least some of the operations.

Similar to the discussion above in regard to claims 5 and 58, while the Matlab reference describes functionality for storing lists of operations and graphically rendering mesh surface plots, it does not describe the inventions of claims 115, 116 or 117 actually being performed or assembled.

For example, in regard to claim 115, while the Matlab reference describes the Matlab system as being capable of storing list of operations (M-files) and as being capable of rendering mesh surface plots, the Matlab reference does not describe storing a copy of a first state of a three dimensional mesh model, performing operations on the three dimensional mesh model to place it in a second state, storing a record of each of the operations in an ordered list, and

reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model to place it in a third state as recited by claim 115. The Matlab reference similarly does not describe storing instructions on a computer readable medium to do so (i.e., as in claim 116), or assembling computer modules to do so (i.e., as in claim 117).

Applicants respectfully assert that the Examiner has used Applicant's claims as a guide to picking and choosing the functionality of Matlab that might be used to meet the limitations of the claims. The mere fact that a user could hypothetically have carried out or assembled the invention using the programming functionality of the Matlab system does not anticipate the claims.

Claims 2 to 4, 55 to 57 and 114 depend from claims 115, 116 and 117. Accordingly, the arguments presented above in connection with claims 115, 116 and 117 apply equally to claims 2 to 4, 55 to 57 and 114.

Applicants respectfully submit that all pending claims are in condition for allowance. Prompt consideration and allowance of the present application are therefore earnestly solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 11-0600.

The Examiner is invited to contact the undersigned at (212) 425-7200 to discuss the application.

Respectfully submitted,

Dated:

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